

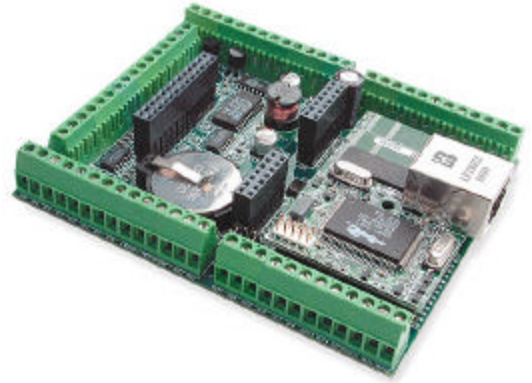


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## BL2100 Smartcat

Models BL2100, BL2110, BL2120, BL2130

Designed for medium-scale control and monitoring applications, the Smartcat is a high-performance single-board computer that gives OEM designers Ethernet and keypad/display options all in one low-cost package. The Smartcat offers plenty of sinking/sourcing digital I/O with A/D and D/A, providing comprehensive integrated control capabilities in a compact 4.14" x 3.41" (105 x 87 mm) form factor. Ethernet models are ideal for remotely monitoring and supervising another programmable system or web-enabling new or existing products. The Ethernet interface is fully supported by software to enable network and Internet connectivity.



### Features

- ?? Optional backlit 122 x 32 pixel graphic display, 7 user-releghendable keys, 7 LEDs
- ?? 10Base-T Ethernet with RJ-45
- ?? Optional 512K Flash/512K SRAM
- ?? 40 sinking/sourcing digital I/O
- ?? 11 A/D and 4 D/A
- ?? 4 serial ports
- ?? Software support enables network connectivity, Email, web server



Available in four flexible configurations-two with Ethernet, two without-all Smartcat models feature 40 digital I/O, 3 RS-232/485 serial ports (plus one programming port), Rabbit 2000<sup>TM</sup> microprocessor at 22.1 MHz, 128K SRAM and 256K Flash (standard), 7 timers, and battery-backed real-time clock. For the most demanding applications, the BL2100 and BL2120 models include 11 channels of 12-bit resolution A/D input and 4 channels of 12-bit D/A output. The Smartcat's 16 digital push/pull outputs allow per-point sinking or sourcing, addressing the needs of both the domestic and international markets.

A 7-key 122 x 32 graphic display is available as a cost-effective user interface (a panel-mount, water-resistant NEMA 4 version is also available). Keypad legends are easily modified by customizing printed paper inserts. User-programmable LEDs provide quick-status feedback, and the entire board/display/keypad assembly mounts in an integrated plastic enclosure.

Smartcat Specifications				
Feature	BL2100	BL2110	BL2120	BL2130
Microprocessor	Rabbit 2000T @ 22.1 MHz			
Ethernet Port	10Base-T, RJ-45, link and activity LEDs		None	
Flash	256K (standard)		256K	
SRAM	128K (standard)		128K	
Backup Battery	Socketed 3-V lithium coin-type, 265 mA.h, supports RTC and SRAM			
Keypad/Display	See keypad/display option (below) and our "OP" products (for serial display options)			
Digital Inputs	24: protected to $\pm$ 36 V DC			
Digital Outputs	16: source/sink 200 mA each, 36 V DC max.			
Analog Inputs	11 at 1 M $\Omega$ , 12-bit resolution, $\pm$ 10 V DC, up to 4,100 samples/sec.	None	11 at 1 M $\Omega$ , 12-bit resolution, $\pm$ 10 V DC, up to 4,100 samples/sec.	None
Analog Outputs	Four 12-bit resolution, 0-10 V DC*, update rate 12 kHz	None	Four 12-bit resolution, 0-10 V DC*, update rate 12 kHz	None
Serial Ports	4 total: two 3-wire (or one 5-wire) RS-232, 1 RS-485, and one 5 V CMOS-compatible (programming)			
Serial Rate	Max. burst rate = CLK/32 Max. sustained rate = burst/2			
Connectors	Screw terminals support max. 14 AWG/1.5 mm <sup>2</sup> (standard)			
Real-Time Clock	Yes			
Timers	Five 8-bit timers (four cascadable from the first) and one 10-bit timer with 2 match registers			
Watchdog/Supervisor	Yes			
Power	9-36 V DC, 1.5 W max. (without display), 3 W max. (with display)			
Operating Temp.	-40°C to +70°C			
Humidity	5-95%, non-condensing			
Board Size	4.14" x 3.41" x 0.93" (105 x 87 x 24 mm)			

\*13–36 V DC supply voltage required